

HAMPSHIRE COUNTY COUNCIL**Report**

Committee	River Hamble Harbour Board
Date:	13 January 2017
Title:	Hamble Sediment Management & Saltmarsh Retention Feasibility Study
Reference:	7981
Report From:	Director of Culture, Communities and Business Services

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1. Summary

- 1.1. This report provides an update on the recently completed Sediment Management & Saltmarsh Retention Feasibility Study.
- 1.2. The study has investigated extremely technical and complex areas of a multi-faceted subject, based on the project drivers and questions asked, as set out below at 3 and 4.2. The historical pattern of decline of saltmarsh is clear and the report highlights the key role played in this process by the original construction of marinas. Other additional factors have also contributed to continued decline. The study has enhanced the knowledge base of the subject area and helped provide empirical clarification of aspects often prone to assumptions. The report provides much information which is of immediate application to the work of the RHHA, regulating authorities, landowners and those providing berthing facilities. It suggests a method for monitoring future spatial and temporal change of marsh if desired. Whilst it does not recommend a large scale project to reuse dredge arisings within the estuary, it outlines the potential for small scale options predominately involving sediment retention measures.

2. Background

- 2.1. The River Hamble Harbour Authority (RHHA) Harbour Board's Strategic Vision seeks to *"meet the aspirations of all those users who have a stake in the future prosperity of the River Hamble, whether their interests are commercial, recreational or environmental"*.
- 2.2. Public consultation in 2010 regarding allocation of the Asset Enhancement Fund highlighted a desire for projects that would deliver improved facilities and access, enhanced safety and security, expansion of education opportunities and environmental benefits. Several projects have been delivered or are underway. These include an initial investigation, approved by the Harbour Board in 2015, into whether there is a need or potential to undertake a scheme which would benefit the Estuary's habitats through sediment management.

3. Project Drivers

- i. Ensuring continued compliance by River Hamble Harbour Authority (RHHA) (and other regulating authorities) with the Habitat Regulations through ongoing evaluation of the River Hamble maintenance dredging 'Baseline Document'. The permitting of third party maintenance dredging must not adversely impact features of the designated sites, and should concurrently seek opportunities for beneficial reuse of dredge arisings. In addition, RHHA has legal obligations to take reasonable steps to conserve and enhance designated sites and protect water quality.
- ii. Concern expressed by local interest groups that maintenance dredging may be contributing to the retreat of the saltmarsh and mudflat areas.
- iii. Enquiries received from local landowners regarding their options and consent requirements for reducing or halting the retreat of their saltmarsh landholdings.
- iv. Enquiries from dredging operators regarding options for beneficial reuse of dredge arisings.

4. The Study

- 4.1. *"Assessing the viability of sustaining, restoring, enhancing, or creating saltmarsh and mudflats through sediment management measures, including the reuse of maintenance dredge arisings, within the Hamble Estuary".*
- 4.2. The study set out to investigate the following:
 - a. The extent to which Hamble's saltmarsh and mudflats are reducing (and may continue to reduce) in area and habitat quality, and the potential need for sustainment, restoration, enhancement or creation.
 - b. Factors contributing to any reduction in area or quality of the Hamble's saltmarsh and mudflat habitats, and the extent to which this may or may not be related to dredging activities within and outside the Hamble.
 - c. Type, sources, and relative quantities from each source of the sediment which deposits in the marinas.
 - d. Whether dredging may contribute to sediment draw-down from the mudflats and saltmarshes, and if so to what degree.
 - e. Whether the maintained dredge basins reduce the sediment supply onto Hamble Estuary saltmarsh and mudflats, and if so to what degree.
 - f. The suitability of Hamble Estuary's maintenance dredge arisings for reuse, including in beneficial disposal and habitat management.
 - g. The suitability of Hamble mudflats and saltmarshes for direct or indirect reception of maintenance dredge arisings for habitat sustainment, restoration, enhancement or creation.
 - h. The suitability of Hamble mudflats and saltmarshes for sediment management techniques other than the reuse of dredged material.

- i. Potential environmental benefits of the disposal of maintenance dredge arisings and other sediment management techniques on the Hamble Estuary system and its margins.
- j. Potential adverse environmental impacts of the disposal of maintenance dredge arisings and other sediment management techniques on the Hamble Estuary system and its margins.
- k. Potential for disposal at one site to cause increased accretion at other locations (e.g. marinas, navigable channels or neighbouring habitats).
- l. Potential sources of funding for any subsequent programme of research and/or practical projects.

5. Project Team

- 5.1. Consultant - After a competitive tendering process, the contract was awarded to Aquatic Health, Technology & Innovation (AHTI) Limited, supported by MarineSpace Ltd.
- 5.2. Steering group – River Hamble Harbour Authority, Natural England, Channel Coastal Observatory, Lymington Technical Services, University of Southampton.

6. Consultation / Engagement

- 6.1. This has been an inclusive process from the start, responding to stakeholders' desires for future work as identified in 2010 (and ongoing) by seeking opinion across all relevant sectors. The following have been key stages:
 - a. Technical inception meeting with sector specialists and regulating authorities to investigate requirements and scope for a study, and to identify a steering group.
 - b. Approval of project brief by RHHA Harbour Board.
 - c. Quarterly progress updates to RHHA Management Committee and Harbour Board meetings.
 - d. Bi-annual updates to Hamble Estuary Partnership.
 - e. Site visits by project team members with landowners experiencing perceived loss of saltmarsh.
 - f. Steering group input to/review of the content of draft reports, and endorsements of final report.
 - g. Wide circulation of final report in September 2016 to those identified via a stakeholder analyses (List provided at Appendix 1).
 - h. Engagement in 1:1 or sector meetings/phone calls as requested to discuss the report.
 - i. Feedback sought on the conclusions of the report (provided below at section 8).

7. Project Output

- 7.1. Executive Summary at appendix 2.
- 7.2. Discussion and Conclusions at appendix 3.
- 7.3. Link to full report:
<http://documents.hants.gov.uk/Hamble/RiverHambleSaltmarshandSoftSedimentHabitatRetentionFeasibilityStudy2016.pdf>

8. Summary of responses to date

- 8.1. Responses have been received from a good cross-section of those consulted, including the regulating authorities (EA, NE, MMO, EBC), landowners (private individuals and companies), commercial operators and sector representatives (RYA, Maritime Archaeological Trust).
- 8.2. Feedback thus far has been positive and supportive. Stakeholders have been complimentary regarding the comprehensiveness of the report and the way in which it investigates and addresses the challenging questions asked. Private individual landowners of marsh are supportive of the work and keen to engage in any potential schemes, either driven privately or by a partnership project.
- 8.3. Questions regarding the detail of technical elements and methodology used are currently being assessed and addressed by the Project Team. Of the queries raised, the majority relate to elements that will be subject to further assessment during the project-phase of any future scheme. Areas highlighted as needing further consideration in any future work, on top of those set out in the report, include more assessment regarding archaeological significance of sites, and of contamination levels within sediment, and associated implications of these.
- 8.4. Responses will be used to inform discussions on the requirements for and detail of any future work by RHHA or by others.

9. Future engagement/consultation

- 9.1. The study will help inform decisions relating to any future projects, and if these are taken forward then there will be more opportunities for engagement during project development, followed by consultation requirements in the determination of permits and consents.

10. Application of the study

- 10.1. The immediate and clear benefit of this study is to provide an improved empirical understanding of those factors affecting saltmarsh decline. In doing so it sheds light on steps that might be taken to sustain saltmarsh now. Although there is no statutory responsibility for the RHHA to take the report to future stages, which may be either impracticable or prohibitively uneconomical, there are essential steps the RHHA should support now.

10.2. Immediate application of the study.

As a stand-alone piece of work, this study can now be used as follows:

- a. To inform future strategic and project-level decisions by the Harbour Board.
- b. To inform RHHA's review of the River Hamble Baseline Document for maintenance dredging.
- c. To provide information to support future internal and external applications for harbour works consents.
- d. To provide information to support Marine Licence applications made by commercial operators, private developers, sailing clubs and RHHA.
- e. To inform local and regional discussions relating to saltmarsh decline and restoration, sediment management and reuse of dredgings.
- f. To inform, at local level, the Solent Forum initiative 'Beneficial Use of Dredgings in the Solent Project' (BUDS) - RHHA has a seat on the steering group.

- g. To enable continue partnership engagement (regulators, commercial operators, landowners, sector specialists) with a view to facilitating any future schemes associated with protection of saltmarsh.
- h. To contribute to the sustainment of a culture of nature conservation within the river in accordance with the RHHA Harbour Boards' Vision.

10.3. Potential future application of study.

- a. To provide empirical evidence to support or discount options for further project development.
- b. To inform the scope and design of a practical project.
- c. To inform any desire to undertake terrestrial radar surveys.

10.4. Challenges to future application

In considering future practical schemes, it is important to have an understanding of the risks on investment for no certain gain. The multi criteria analyses set out examples of the many known variables which must be considered and assessed in detail to inform both licence requirements and practical application of any physical project. In addition to these, complex environmental schemes such as this also bring with them a number of unknowns. These include: i) the likelihood of actual success; (ii) environmental conditions; and (iii) likely funding streams/grants and the associated uncertainty of award. Although current cost examples were indicated in this study, the full inclusion of various potential project costs was excluded after careful consideration. The level of uncertainty here would have diverted the task from the primary objectives relating to protecting the environment and to managing sediment as a resource rather than a waste material. Any future scheme would have to fully assess the risks associated with it.

11. Next steps

- 11.1. In order to realise immediate benefit from the study, it is recommended that RHHA uses the report to apply to the steps set out in 10.2.
- 11.2. In order to further inform the potential future application of the study to date, it is recommended that RHHA continues to promote the study, examines responses and encourages stakeholder engagement with a view to consideration of the study's recommendations and any potential next steps to be taken by both RHHA and other interested parties.

12. Acknowledgements

- 12.1. Our thanks go to the consultants at AHTI Ltd and MarineSpace Ltd for conducting the study, and to members of the project steering group who provided valuable expertise and guidance (Natural England, University of Southampton, Lymington Technical Services, Channel Coastal Observatory). We would also like to thank the Environment Agency for providing data and attending the inception meeting, and to thank the wide range of private contributors and private landowners within the Hamble, without whose proactive interest and personal involvement, the quality of this report would be greatly diminished. This has been a joint and collaborative enterprise.

13. Recommendations

13.1. It is recommended that the River Hamble Harbour Board:

- a. Accepts the feasibility report.
- b. Uses the feasibility report to apply to the steps set out in 10.2.
- c. Continues to engage in looking into the future application of the study.

CORPORATE OR LEGAL INFORMATION:**Links to the Corporate Strategy**

Hampshire safer and more secure for all:	yes
Corporate Improvement plan link number (if appropriate):	
Maximising well-being:	yes
Corporate Improvement plan link number (if appropriate):	
Enhancing our quality of place:	yes
Corporate Improvement plan link number (if appropriate):	

Section 100 D - Local Government Act 1972 - background documents

The following documents discuss facts or matters on which this report, or an important part of it, is based and have been relied upon to a material extent in the preparation of this report. (NB: the list excludes published works and any documents which disclose exempt or confidential information as defined in the Act.)

Document

Location

None

IMPACT ASSESSMENTS:

1. Equality Duty

1.1. The County Council has a duty under Section 149 of the Equality Act 2010 ('the Act') to have due regard in the exercise of its functions to the need to:

Eliminate discrimination, harassment and victimisation and any other conduct prohibited under the Act;

Advance equality of opportunity between persons who share a relevant protected characteristic (age, disability, gender reassignment, pregnancy and maternity, race, religion or belief, gender and sexual orientation) and those who do not share it;

Foster good relations between persons who share a relevant protected characteristic and persons who do not share it.

Due regard in this context involves having due regard in particular to:

1.2. The need to remove or minimise disadvantages suffered by persons sharing a relevant characteristic connected to that characteristic;

1.3. Take steps to meet the needs of persons sharing a relevant protected characteristic different from the needs of persons who do not share it;

1.4. Encourage persons sharing a relevant protected characteristic to participate in public life or in any other activity which participation by such persons is disproportionately low.

1.5. Equalities Impact Assessment:

A full Equalities Impact Assessment for the River Hamble Harbour Authority's compliance with the Port Marine Safety Code (including environmental responsibilities) has been carried out and this report does not raise any issues not previously covered by that Assessment.

2. Impact on Crime and Disorder:

2.1. This report does not deal with any issues relating to crime and disorder.

3. Climate Change:

3.1. How does what is being proposed impact on our carbon footprint / energy consumption? The contents of this report have no impact on carbon footprint or energy consumption

3.2. How does what is being proposed consider the need to adapt to climate change, and be resilient to its longer term impacts? Not applicable to this report.